

## **REMARKS**

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

The subject matter here pertains to a hybrid vehicle slip stop device. The device comprises a plurality of different types of slip stop means for preventing slip of the vehicle. The plurality of different types of slip stop means have different mechanical structures from each other for increasing frictional resistance against a road surface, thereby preventing slip of the vehicle. The device further comprises road surface condition detecting means for detecting the road surface condition, and a single controller for actuating each of the plurality of different types of slip stop means, wherein each of the plurality of different types of slip stop means is other than a conventional brake system. Additionally, the plurality of different types of slip stop means are mechanical structures that are separate from and independent of each other. The single controller is structured to select one of the plurality of different types of slip stop means according to the road surface condition detected by the road surface condition detecting means, and actuate only the selected one of the plurality of different types of slip stop means separately from and independently of the slip stop means other than the selected one of the slip stop means, while not actuating the slip stop means other than the selected one of the slip stop means, when performing the function of preventing slip of the vehicle.

Claims 22-24 are rejected under 35 U.S.C. § 112, second paragraph, because it is unclear whether each of the different types of slip stop means is actuated by itself or by the single controller. Claim 22 is amended to address this issue. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 22 is rejected under 35 U.S.C. § 103(a) as being unpatentable over JP-08025905 (JP '905) in view of JP-499850 (JP '850). JP '905 discloses an anti-slip assist device for a vehicle. The anti-slip assist device comprises anti-slipping grains 2-2 which are scattered on a driving surface. The quantity of grains depends on a measured coefficient of friction between the tires of the vehicle and the driving surface. A slip detecting device 6 detects whether the vehicles tires are slipping relative to the driving surface, while control circuit 7 controls the amount of grains applied to the driving surface.

The Official Action takes the position that JP '905 discloses each feature recited in Claim 22, with the exception of the plurality of different types of slip stop means being independent and separate from each other. Attempting to cure this deficiency, the Official Action relies on the disclosure of JP '850.

JP '850 discloses a braking system for an automobile. In an emergency, the driver of the automobile depresses a brake pedal, thereby depressing a pedal 2, which moves a rod 1 forward. When rod 1 is moved forward, the cock A of a compressed air tank B is opened, and bellows portion 4A' is released and hangs down vertically. This causes sand in sand storage tank 4 to be guided by the flow of compressed air and blown onto the road surface. Actuation of the rod 1 also releases a rubber checker in front of the front wheels. The Official Action takes the position that the sand from the storage tank 4 and the checker 5 correspond to the plurality of different means being independent and separate from each other. The Official Action concludes that it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify JP '905 to include the

components of JP '850 in order to permit use of one slip stop means if the other is defective. This rejection is respectfully traversed.

Amended Claim 22 provides for a hybrid vehicle slip stop device comprising, *inter alia*, a plurality of different types of slip stop means having different mechanical structures from each other, and that the plurality of different types of stop means are mechanical structures that are separate from and independent of each other. The Official Action identifies the various quantities of grains 2-2 in JP '905 as corresponding to the claimed plurality of different types of slip stop means. However, the grains 2-2, whether dispensed in a large quantity or small quantity, do not have different mechanical structures from each other. In other words, regardless of the quantity of grains dispensed, the grains are only a single mechanical structure. Moreover, the grains are not separate from and independent of each other, as the grains are supplied and dispensed from a common source, the particle spreading device 2.

The Official Action relies on the disclosure of JP '850 to show different types of slip stop means being independent and separate from each other. Amended Claim 22 recites that the single controller is structured to select one of the plurality of different types of slip stop means according to the road surface condition detected by the road surface condition detecting means, to actuate only the selected one of the plurality of different types of slip stop means separately from and independently of the slip stop means other than the selected slip stop means, while not actuating the slip stop means other than the selected one of the slip stop means. In JP '850, the sand from the storage tank 4 and checker 5 are deployed simultaneously when the brake pedal and pedal 2 are depressed to move rod 1. The movement of

rod 1 actuates both the checker 5 and the spray pipe 4A' to disperse the sand from tank 4. Thus, JP '850 does not disclose a controller that selects one of the plurality of different types of slip stop means according to a road surface condition detected by the road surface condition detecting means, to actuate only the selected one of the plurality of different types of slip stop means, while not actuating the slip stop means other than the selected one of the slip stop means.

Even assuming for the sake of argument that it would have been obvious to combine JP '905 and JP '850 to include the multiple braking mechanisms of JP '850 in JP '905, JP '850 suggests that these mechanisms, the checker 5 and sand form the storage tank 4, are to be used together to create a maximum braking force in an emergency situation. Thus, the combination still fails to show a controller which selects one of the plurality of different slip stop means according to a road surface condition detected by road surface condition detecting means, to actuate only the selected one of the plurality of slip stop means.

JP '850 briefly notes near the end of the translation that by depressing the pedal 2, the sand may be deployed. However, JP '850 does not disclose that one of the sand or the checker 5, individually, may be selected. Rather, it is the sand alone, or the combination of the sand and checker 5, that may be selected by an operator of the automobile. Thus, these two selections are not separate and independent of each other, as both include the sand. For the reasons cited above, the obviousness rejection of Claim 22 is not supported. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 23 and 24 is rejected under 35 U.S.C. § 103(a) as being unpatentable over JP-08025905 (JP '905) in view of JP-499850 (JP '850) and in further view of

Tsukamoto et al ("Tsukamoto," U.S. Patent No. 5,984,435). However, Tsukamoto does not cure any of the deficiencies discussed above with regard to Claim 22, from which these claims depend. For at least this reason, these claims are allowable.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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